

MEMORANDUM

TO: DAVE SHAW

FROM: GEORGE AUSTIGUY *GEA*

DATE: AUGUST 16, 1993

RE: ARCO CANAL DIVERSIONS

I have reviewed the Arco diversion data for the week of 5/30 - 6/5. Attached are 9 plots which summarize the recorded canal diversions for the week. Seven diversions from the Arco canal were recorded by the BLRID.

BLRID lateral records identify a priority date of 02/01/1902 for the entire week. This does not agree with IDWR's records, Doug R. is currently checking to see what the priority dates were that he called for that week. Water rights identified as "on" for the lateral diversions are based upon the 02/01/1902 date.

Our records indicate that there was no storage entering the Arco canal until 6/2/1993.

Total decreed diversion rates identified on the BLRID diversion records for Lew Rothwell are not in agreement with our records. For example through 02/01/1902 Lew Rothwell has water rights from the Arco totaling 4.58 cfs. On the delivery record his decree credit is 271 in or 5.42 cfs.

Of the seven diversions from the Arco canal six were assessed for canal loss (the exception was Lew Rothwell who was assessed only one out of the seven days). In some instances, users were diverting less than their decreed rights while their total assessment was in excess of their decreed rights.

Lewis Rothwell received water in excess of his decreed rights prior to the day storage water was in the Arco Canal (6/2). O.D. Carroll (James Anderson Trust in our records), Sunset Trust and Larry Quist's diversions were close to their decree. During this same time Joe Johnson, Harvey Walker and Spencer Toone were receiving significantly less than their decree rights. Of interest to note is that data indicates on June 1 all diversions but Lew Rothwell were shut down.

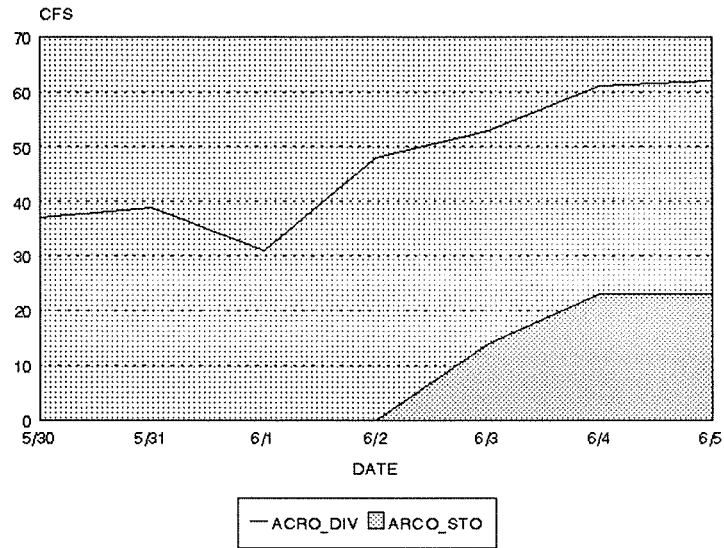
When the daily assessments (which should equal diversion rates plus canal losses) are summed for the Arco canal they are considerably less than the measured diversion from the river (see the last plot). Several possibilities for this discrepancy come to mind.

1. Inaccurate measuring devices
2. Inaccurate canal loss calculations

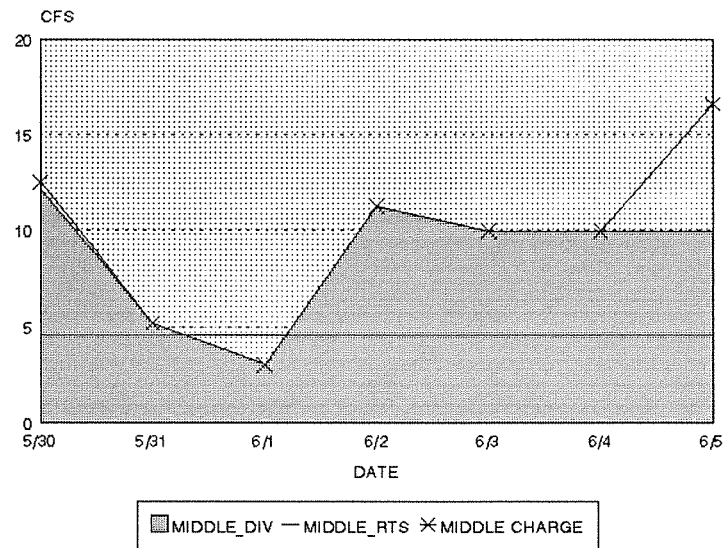
### 3. Unaccounted for diversions

I have attached a water rights list and a copy of the BLRID diversion records for reference. Let me know if you have any questions.

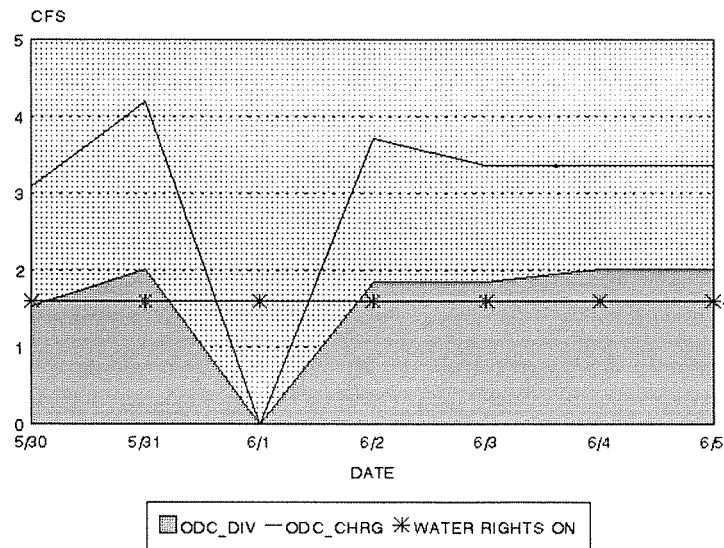
## ARCO DIVERSION DATA



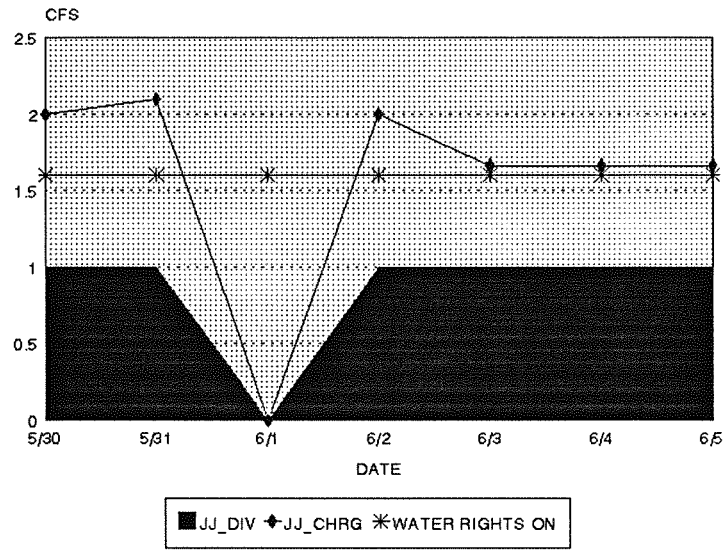
## MIDDLE DIVERSION DATA



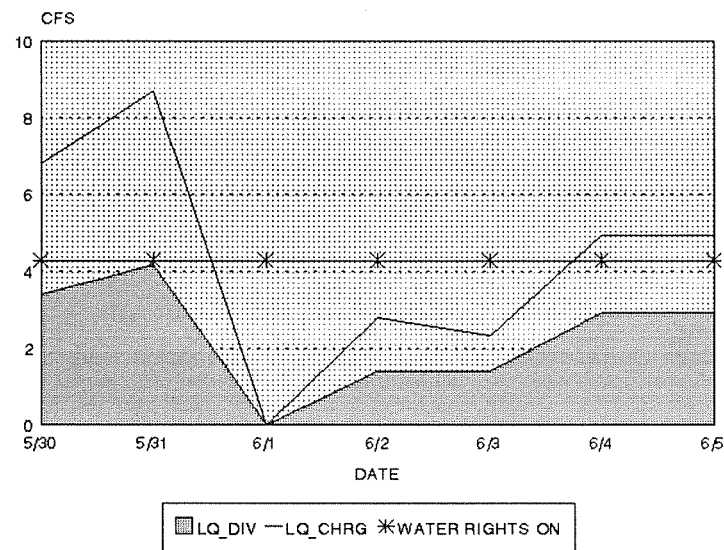
## CARROLL DIVERSION



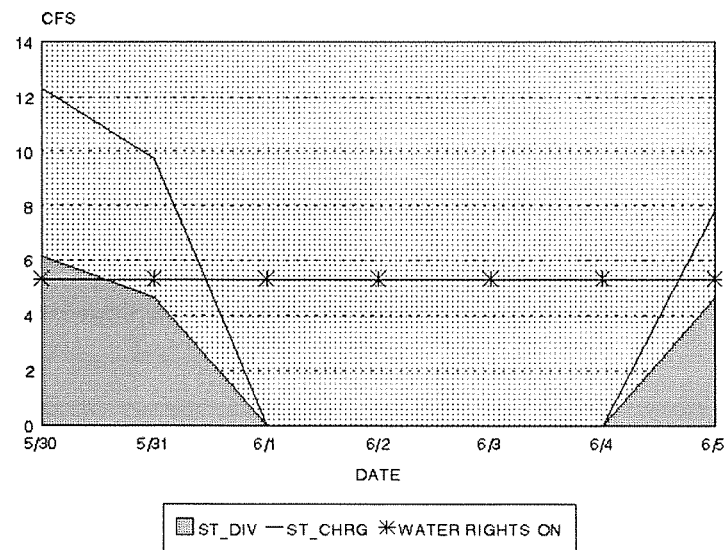
## JOHNSON DIVERSION



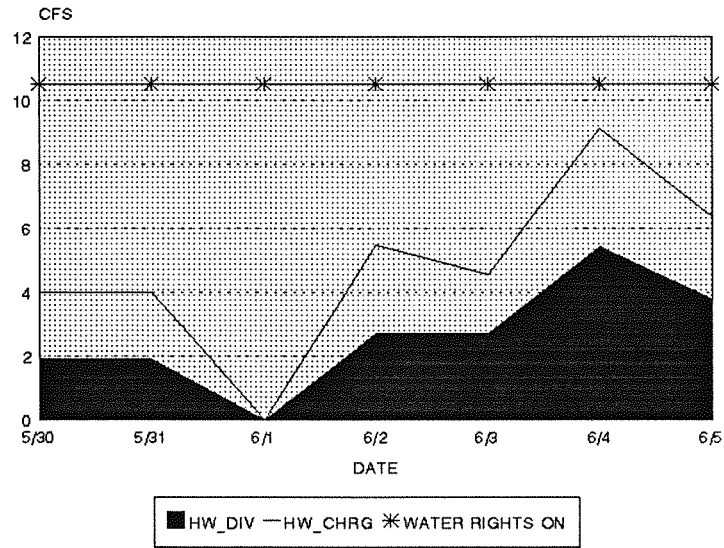
## LARRY QUIST DIVERSION



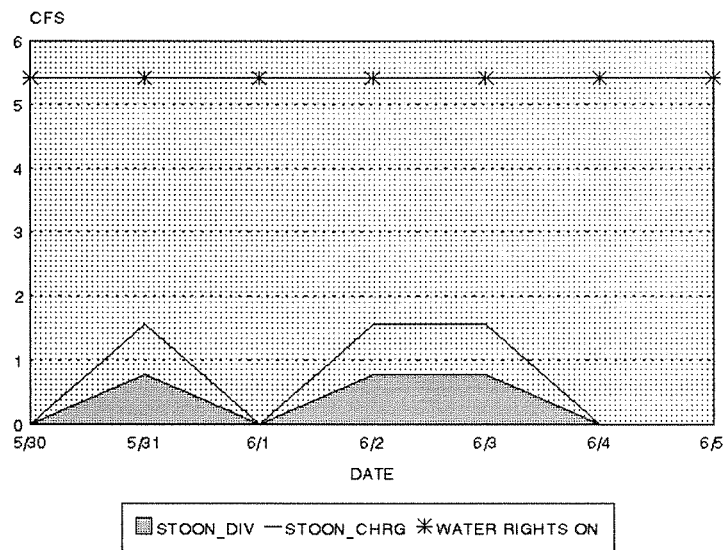
## SUNSET TRUST DIVERSION



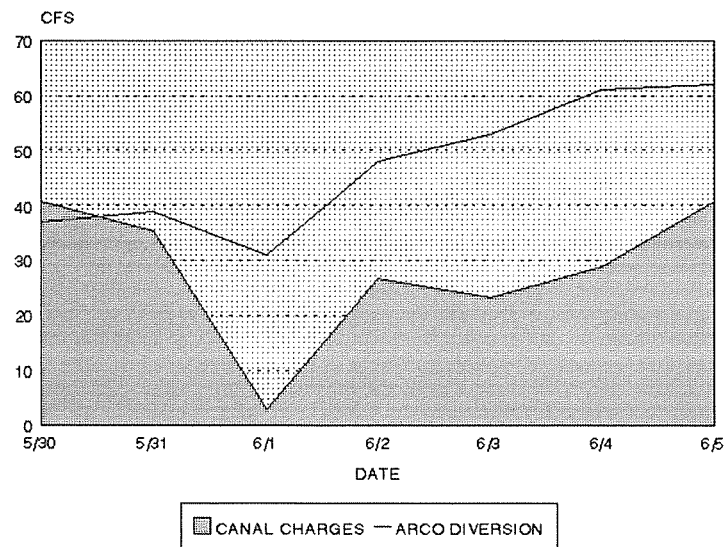
## WALKER DIVERSION



## S.TOONE DIVERSION



## ARCO CANAL DIVERSIONS



# ARCO CANAL DIVERSIONS

LR_CHRG	12.5	5.2	3.06	11.25	9.95	9.95	16.58
ODC_CHRG	3.08	4.2	0	3.72	3.36	3.36	3.36
JJ_CHRG	2	2.1	0	2	1.66	1.66	1.66
LQ_CHRG	6.78	8.7	0	2.82	2.35	4.92	4.92
ST_CHRG	12.32	9.75	0	0	0	0	7.83
HW_CHRG	4.02	4.02	0	5.46	4.55	9.1	6.35
STOON_CHRG	0	1.56	0	1.56	1.56	0	0
CANAL CHARGES	40.7	35.53	3.06	26.81	23.43	28.99	40.7
ARCO DIVERSION	37	39	31	48	53	61	62

SUNSET TRUST										F. TONE + STONE				M.C.O D.V			
L R		O.D.C		J J		L C Q		S T		W		DIV CHEG RT		Σ		Σ	
DIV	CHEG RT	DIV	CHEG RT	DIV	CHEG RT	DIV	CHEG RT	DIV	CHEG RT	DIV	CHEG RT	DIV	CHEG RT	DIV	CHEG RT	DIV	CHEG RT
5130	12.5 12.5 4.58 1.6	1.52 3.08 1.6	1.6	1 2	1.6 1.6	3.59 6.78 4.28	4.16 12.32 5.34	1.93 4.02 10.5	5.412	26.5	40.7	37					
5131	5.20 5.20	2.02 4.12 1.6	1 2.11	4.18 8.7	4.68 9.75	1.93 4.02	0.78 1.56	17.86	35.33	39							
611	3.06 3.06				0					3.06	31						
612	11.25 11.25	1.85 3.72 1.6	1 2	1.41 2.82	0	2.73 5.46	0.78 1.56	12.02	26.86	48							
613	9.95 9.95	1.85 3.36 0	1 1.66	1.41 2.35	0	2.73 4.55	0.78 1.56	17.72	23.413	53							
614	9.95 9.95	2.02 3.36 0	1 1.66	2.85 4.92	0	5.44 9.1	0	21.36	28.9961								
615	9.95 16.58	2.02 3.36 0	1 1.66	2.75 4.92	4.68 7.8	3.81 6.35	0	24.411	110.67	62							